

IN THE SPECIFICATION

Please replace the paragraph beginning with line 1 on page 7 with the following paragraph:

These problems can be overcome with the present invention, a first embodiment of which is shown in Figure 4. Figure 4 shows a high-level block diagram of a CMTS 116 that ~~may be located in~~ may be located in a headend, primary hub (PH), secondary hub (SH), and fiber node (FN), as examples. An Ethernet connection 129 adapted to receive Ethernet data packets is coupled to a CPU 130. A single IC 142 includes a MAC 138 and one or more transmitters 134, and a separate, single IC 144 includes a MAC 140 and one or more receivers 136. CPU 130 is coupled to IC's 142 and 144, as shown. The MAC function 138/140 is partitioned so that MAC 138 of IC 142 is adapted to handle downstream information and the MAC 140 of IC 144 is adapted to handle upstream information.

Please replace the paragraph beginning with line 15 on page 7 with the following paragraph:

The receiver 136 (upstream) MAC 138 handles the transmitter data packets. The receiver MAC ~~138 140~~ function is more complicated and includes programming the receiver 136 according to map messages. When the time is mapped, the receiver 136 must be loaded with this map information to determine when each packet is entered. For each message or data packet that arrives, the receiver MAC ~~138 140~~ handles the data encryption and concatenation. The receiver MAC ~~138 140~~ is adapted to handle defragmentation, which is the rebuilding of packets that have been fragmented. The receiver MAC ~~138 140~~ is also adapted to handle deconcatenation, meaning that if the packet is large, the MAC ~~138 140~~ divides the packet into several smaller packets according to DOCSIS standards, for example. Receiver MAC ~~138 140~~ may also be adapted to suppress packet payload headers or to perform reverse payload header suppression, for example.

Please replace the paragraph beginning with line 19 on page 14 with the following paragraph:

The novel circuit and method disclosed herein achieves technical advantages by providing a reconfigured MAC function contained in a receiver IC 226 and 336 226, 336, 442 and a transmitter IC 234 and 334 234, 334, 444. This is advantageous because costs of a CMTS are reduced by providing flexibility in capacity levels with two MAC IC's, rather than providing the maximum capacity level as in single MAC ICs of the prior art. A further advantage is providing more modularity and scalability to the CMTS. Another advantage is separating the MAC control of video on demand from DOCSIS signals to enable transmission of them at the same time. Data packets bypass the CPU 330/331 in an embodiment, increasing the speed and efficiency of the system.